

## VALUE OF THE "SUDATORIUM."

For several lately a letter in your paper pointing out some of the advantages of fire-proof houses: there is one important benefit, of a sanitary character, which they would confer;—that is, a small room might be constructed below-ground, in private houses, both in town and country, heated to the degree of an oriental hammam, without incurring danger. In the East they have been universal from time immemorial. In ancient Rome, and over her wide dominions, the *sudatorium* was considered indispensable as a preservative of health; in many of the remains of Roman villas discovered in this country, the tile flues by which such rooms were heated are still visible. The Danes introduced the practice again into England, for it is on record that it was the cause of the preference manifested by the Saxon ladies for the invaders.

Now, in a commercial country like this, a hot room would be peculiarly desirable: the merchant sits all day at his desk: he cannot afford time for out-of-door exercise; but his daily task being terminated, he thinks he is fairly entitled to a good dinner: down goes the turtle, followed by the punch: here is a lamentable excess of imports over exports: the stomach does much, the pores nothing; hence gout, apoplexy, and a legion of ills. The citizen, in consternation asks,—"What am I to work hard and live on gruel?" No, good sir, let your house be fire-proof: employ an architect, acquainted with the mode of heating adopted at Smyrna or Constantinople, to build you a subterraneous room, say 9 feet square, with a dressing-room adjoining at a lower temperature, and thus the depletion rendered necessary by the counting-house and the good cook will be effected periodically by the enjoyment of a luxury without loss of time, without trouble, but with cheering gain of appetite. Just try. T. R. Y.

## THE DRAINAGE OF TOWNS AND ITS DISTRIBUTION.

I was much struck with your recent powerful appeal on the subject of metropolitan drainage, and preserving the river from pollution. It is positively disgraceful that the present state of things should still go on without any hopeful prospect of amendment. The quotation from the Report of the Select Committee of the House of Commons as to effecting a remedy through the agency of a "Company," although just to a certain extent, is likely to mislead; as may be shown by the experience of the Sewage Manure Company, whose Bill was under the consideration of the Committee alluded to. The experiment, as worked out by that company, proves indeed the *practicability*, but not the *remunerativeness* of the undertaking. The latter, I believe, is mainly owing to the enormous expenses incurred by the promoters by vexatious opposition, and the consequent exhaustion of their funds, which were thus rendered inefficient to carry out their scheme on such a broad scale as would give an adequate return for so much sunken capital; but, so far as it goes, it undoubtedly accomplishes the grand desideratum of carrying off the foul water from the river, and applying it to fertilize the land. I am induced to refer to this case more particularly as it appears that another company is now proposed, who hold out the expectation that these objects can be effected with profit to the adventurers, and thereby the public will be saved from all charge. This, I feel assured, is too flattering a prospect to be realized; and even to entertain it now will only tend to divert the public attention from the actual requirements of the case, and still further to retard their accomplishment.

The most obvious objections are the enormous expense of carrying deep tunnels along the whole length of the metropolis, with the numerous intercepting sewers and branches to collect the drainage into them, and their liability to silt up and become quite choked, having only an artificial current obtained by pumping, which cannot carry off the heavier matters that will be washed into them. The difficulty or impracticability of efficient clean-

ing, and repair. After all, it appears that the foul contents may be thrown into the river; and though the pollution might not extend to the inhabitants of Westminster, yet the consequences must be more or less injurious to many populous districts, in proportion as they approximate to the noxious source. But the projectors say, we intend to manufacture the sewage into guano: doubtless this might be done, but will it pay? And has not the experiment been already tried and proved a failure. Then as to distributing the fluid over the country (which has been proved to be the only efficacious and economical mode of dealing with it), such an attempt would be rendered almost abortive by the concentration of the whole at one spot; so that in order to embrace an adequate scope for distribution, the cost of transmission will be enhanced beyond what the measure would be worth, and consequently more than the consumers could afford to pay.

I think it must be evident from this general view, that these elaborate and costly plans, with their concentrated termini, must certainly fail to accomplish the great object desired; either in a public point of view, or as regards commercial enterprise. I am, therefore, induced to offer some suggestions of a more limited nature, by which I feel assured that the great end might be attained by a combined operation of public and private means, without embarking in any great outlay at one time, and thus avoiding any large risk.

Presuming that the application of the sewage to fertilize the land is one very important object, it is evident that the shorter and more direct the line of transmission, the cheaper it will be supplied, and the more readily the nuisance will be removed; therefore, instead of conveying the whole to one spot, the object should be to throw it off in radiating lines, from all points of the metropolis where it can be most conveniently collected, taking the most direct courses along the principal roads, say to a distance of 10 miles or more, according to the nature and requirements of the country. The pumping stations to be planted at or near the mouths of the principal sewers, with branches or intercepting conduits to collect the whole drainage of the neighbourhood into the well.

The public may be well content to bear the expense of these stations, with the main pipes and the engine power to pump away the fluid, which is their main object; as it will be much less than in the plans alluded to; for it will not involve any material alterations in the arrangement or construction of the existing sewers and drains, and when the foul fluid is thus conveyed into the rural districts, there can be no doubt that associations will be readily formed (with the facilities and inducements to be afforded them) to undertake the distribution of it for their own and their neighbours' benefit, to be paid for at a very moderate rate, which, after a sufficient return to the adventurers, might go towards reimbursing the public for their outlay. Even if no such reimbursement should be realised, the public will have effected their object, and at a moderate expense; but from the experience of the Sewage Manure Company, it would appear that the operation might be rendered remunerative, both to the adventurers and the public; inasmuch as all the great charges which have crippled that company will in this case be avoided.

In order to carry this scheme into effect, a general Act should be passed, combining all the requisite powers for local and general purposes, by which the country associations might be severally incorporated without expense, so that their funds may be wholly devoted to providing the distributing pipes and apparatus, with the necessary staff for working and management.

One great advantage of this plan, as compared with the gigantic schemes before alluded to, is, that from its nature it is so arranged as to admit of being carried out progressively, taking up one branch line at a time, the outlay on which will be comparatively small, giving the benefit of experience in the subsequent execution of others, and thus (as already remarked) avoiding any great risk.

The general result will be, that the great sanitary objects will be attained at a very moderate expense to the public; and the economical object, viz., the preventing the annual waste of nearly a million's worth of valuable material, will be effected by private capital and enterprise. Thus these two great ends will be attained, by the joint operation of public and private means, with much greater advantage than either of them can be accomplished separately. CIVIS.

## EPITAPHS AND THEIR REFORM.

As your readers seem to be interested in this matter I submit you a few remarks on the same with illustrations. The true character of an epitaph is not to cast ridicule, and to provoke the smile of the passer-by, as in the following, copied from a tomb in a country churchyard in Cheshire:—

"Here lies W. W.  
Who never more will trouble you, trouble you."

And another from a stone in the beautiful yard of the picturesque village of Gawsworth:—

"Reader, take notice, that on the 12th of February, 1760, Thos. Combsley, a brave veteran dragoon, here went into his quarters, and remember that when the trumpet calls he'll out and march again."

Nor yet ought it to be so much that of eulogies instanced in the two following inscriptions from tablets in the cathedral yard of Glasgow, A.D. 1616:—

"Ye gazers on this trophoe of a tombe  
Send out one groan  
For want of her once turn of earth  
And now lies in earth's womb,  
Ere'd long a virgin.  
Then a spotless wife, here lies enshroued  
Mist's grief, earth's loss, friend's pain,  
Beligion's lamp, virtue's light, heaven's gain."

Also the following, which is far better than the last:—

"He lived—nor made himself a single foe—  
He died—nor left an enemy below."

But its purpose ought to be, and often is, that of leading the listless wanderer (and who that has an hour to spare does not like to stroll through the old churchyard) to think of the scenes around him, and to reflect how soon he may be called to join those who lie there. In conclusion I give you two which are more to my taste, and which speak volumes.

The one from a stone in St. Mary's churchyard, in Stockport:—

"As you are now,  
So once was I:  
As I am now,  
So you must be:  
Therefore remember  
That you must die."

The other from a head-stone in that beautiful cemetery of Liverpool, peculiar in the solemnity of its solitude amidst all the bustling scenes of life:—

"What her character was will be known at the day of judgment: Reader, think what thine own will be."

M. B. NEWTON.

Ms. Editor.—You are doing good by again directing attention to the impropriety of many of the epitaphs which disfigure our churchyards. I send you one from St. Mary's, Islington, which, although it has no evil in it, is wanting in the dignity, earnestness, and solemnity which should mark these compositions:—

"Art thou dead, Thomas?" "Yes, and here I lie."

"Dost thou live, Thomas?" "Yes, with Christ on high.  
I lived to die, and died to live on high,  
With God and Christ to all eternity."

Will you let me say here how much I liked your few words about flowers. Every artist should love flowers—study flowers. Allan Cunningham has half-a-dozen charming lines upon them:—

"There is a lesson in each flower—  
A story in each stream and bower:  
On every herb on which we tread  
Are written words which, rightly read,  
Will draw us from earth's fragrant sod  
To hope, and holiness, and God."

MONS EXIMUS.